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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/942,830	08/30/2001	Johannes Wilhelmus Maria Sonnemans	ACH2823US	9198

7590

08/25/2003

Louis A. Morris
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EXAMINER

NGUYEN, TAM M

ART UNIT

PAPER NUMBER

1764

DATE MAILED: 08/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/942,830

Applicant(s)

SONNEMANS ET AL.

Examiner

Tam M. Nguyen

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,7-12,14 and 18-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 7-12, 14 and 18-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on June 16, 2003 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 09/829,625 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Response to Amendment

The rejection of claims 1-22 under 35 USC § 112 is withdrawn by the examiner in view of the amendment filed on June 16, 2003.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 7-12, 14 and 18-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gerritsen et al. (EP-0870817 A1) in view of either Takahashi et al. (4,845,068), Takahashi (EP-0357295 A2), or Takahashi (EP-289211 A1).

Gerritsen discloses a hydrodesulfurization process by contacting a hydrocarbon feedstock with a catalyst in one or two reaction zones. The Gerritsen feedstock is the same as the claimed

Art Unit: 1764

feedstock and the reactions zones are operated at conditions similar to the claimed operating conditions. (See page 4, lines 2-42)

Gerritsen does not disclose that the catalyst comprises sulfur-containing organic additive. However, Takahashi (all three references) disclose a hydrodesulfurization process wherein the process employs a catalyst comprising metals of group VIB, VIII, and mercaptocarboxylic acids (See abstracts of all three references). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gerritsen by using the catalyst of Takahashi because the catalyst of Takahashi is effective in a hydrodesulfurization process. It is noted that all the references do not disclose the amount of sulfur in the product stream. However, there are similarities in the modified process of Gerritsen and the claimed process in terms of catalyst, feedstock, and operation conditions. Therefore, it would be expected that the product stream would contain the amount of sulfur as claimed.

Gerritsen does not disclose that the feedstock comprises a sulfur content between about 150 ppm and 500 ppm. However, the process of Gerritsen can be operated at an amount less than 1000 ppm. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of Gerritsen by using a feedstock comprising about 150-500 ppm of sulfur because the process of Gerritsen is effective to operate at a high level of sulfur compounds and it is known that the catalyst is less tolerant when using a feedstock comprising a low level of sulfur compared with using a feedstock comprising a high level of sulfur. Therefore, it would be expected that the modified process of Gerritsen would also be effective to remove sulfur content in a feed which comprises the claimed amount of sulfur.

Response to Arguments

The argument that all of the references do not disclose the claimed amount of sulfur in the feedstock is not persuasive because the process of Gerritsen is effectively operated when using a feedstock comprising a high level of sulfur. Therefore, it would be expected that the process of Gerritsen would be effective to operate when using a feedstock which comprises the claimed amount of sulfur because a lower amount of sulfur in the feed would not affect the capability of the modified Gerritsen catalyst to decompose sulfur compounds in the feedstock.

The argument that Gerritsen does not disclose the amount of sulfur content in the product stream is not persuasive because the modified process of Gerritsen is similar to the claimed process in terms of catalyst, feedstock, and operation conditions. Therefore, it would be expected that the product stream would contain the amount of sulfur as claimed.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1764

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam M. Nguyen whose telephone number is (703) 305-7715.

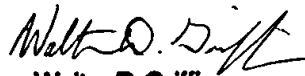
The examiner can normally be reached on Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Tam M. Nguyen
Examiner
Art Unit 1764

TN


Walter D. Griffin
Primary Examiner